NPIC/TSSG/RED-1783-69
4 September 1969

MEMORANDUM FOR THE RECORD

SUBJECT: Automatic Film Loading and Threading Study

1. The concept of Automatic Film Loading and Threading is relatively old. Several models of motion picture cameras and projectors as well as many automatic processors contain automatic threading features. As the film path grows in length and number of turns, the need for automatic threading becomes more evident. Within NPIC, there are a few processors with automatic or self threading features, but most of the film handling equipment requires manual loading and threading.

2. Of the manual loading and threading equipment within NPIC, the greatest number of complaints regarding threading has been directed against the rear projection viewers. Other complaints have been directed against the [redacted] Enlargers and Fiber Optics Viewers. Although these complaints are generally valid, the frequency of use of the offending instruments (with the exception of the Point Transfer Device) is low. (The Point Transfer Device is generally used with cut film which obviates the earlier complaints.) Complaints have also been voiced about the loading of almost all the equipment, but especially regarding the Light Tables. It appears that almost every complaint takes the form of "It would be nice if . . ." but the justification for expending funds to improve the existing equipment has not been made.

25X1

3. Possible techniques for automatic film loading and threading are unique to the instrument or type of instrument to which they could be applied. It does not appear that an optimum solution for one instrument could be applied to another. For example, a 940 Light Table automatic loading system would have to accommodate either one or two webs of film, either of two spool diameters and any of the various widths of from 70mm to 9.5 inches. The imagery has also to be aligned so that it is on the forward edge of the viewing surface. The [redacted] Enlarger, on the other hand, only requires that one roll of film be loaded of one of the various widths and diameters of spool size. This is mounted against the back fixed bracket. The problems are therefore quite different and solutions would also be different.

25X1

4. It is recommended that the concept for a general study of Automatic Film Loading and Threading Techniques be dropped in favor of

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specific studies directed toward the solution of specific loading and threading problems. In this regard it is suggested that the feasibility of Automatic Film Loading and Threading be considered on new developments so that it can be incorporated in the design. As far as existing equipment goes, it does not appear that the cost to modify them can be justified.

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